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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/908,948	07/19/2001	Kenneth P. Parker	10001121-1	1925

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AGILENT TECHNOLOGIES, INC.
Legal Department, DL429
Intellectual Property Administration
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EXAMINER

ABRAHAM, ESAW T

ART UNIT PAPER NUMBER

2133

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/908,948

Applicant(s)

PARKER, KENNETH P.

Examiner

Esaw T. Abraham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11 and 14-23 is/are allowed.
- 6) ☒ Claim(s) 12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's arguments with respect to amended claims 21-23 have been considered and persuasive. Therefore, Claims 21-23 are allowed but upon further consideration and reviewing the previous allowed claims, the examiner withdraw the allowance of claims 12 and 13 and a new ground(s) of rejection is made under 112, 2nd paragraph and 101, non-statutory rejection.

Claim Rejections - 35 USC § 101, Non Statutory

1. Claims **12 and 13** are rejected under 35 U.S.C. 101 because the claimed invention is directed to **non-statutory** subject matter because: the claimed invention is directed to non-statutory subject matter.

As per claim 12:

The language of the claim (Logic synthesis software, comprising a number of computer readable media and a computer readable program code stored on the number of computer readable media the computer readable media comprising program code for reading a circuit description file, the circuit description file comprising data [emphasis added]) raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C 101.

Claim **13**, is rejected due to the dependency on a rejected base claim (claim 12)

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U. S. C 112

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims **12 and 13** is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 12 the claim recite, in the preamble, "a logic synthesis software, comprising a number of computer readable media". It is unclear how a logic software comprises a number of (physical) computer readable media. That therefore, renders the claims **vague and indefinite**. The examiner would appreciate if the applicant would clarify this matter.

Claim 13, is rejected due to the dependency on a rejected base claim (claim 12).

Examiner's statement for reason for allowance

3. Claims **1-11 and 14-20** have been previously allowed.

Claims **21-23** have been allowed.

The following is an examiner's statement for allowance:

As per claim 21:

The prior art of record, Wu (U.S. PN: 5,831,992) in figure 1 disclosed functional elements including pattern generator (12), which is capable of generating a plurality of pseudo-random test vectors whereby the functional elements (Scan chain 1 to Scan chain m) represent the circuit components within the circuit under test (CUT) for which fault diagnosis is required (see col. 4, lines 43-53). Wu further teach that all the scan chains are tested at the same time, and the test responses from all the scan chains are analyzed in parallel and when the scan chain fails an approach is to treat the multiple scan chains as multiple single scan chains, i.e., diagnose one chain at a time or in other words, the entire test set is applied to all the scan chains, but the test response from only a single chain is analyzed by gating the scan-out data (see in figure 2) and the controller (see element 18) is used to select the test responses (see col. 6, lines 45-59). Naffziger (U.S. PN: 6,606,720 in an analogous art teaches a method and apparatus for scanning data into and out of a latch and the method to reduce the transistor count for scan chain link (see col. 2, lines 33-43). Further, Naffziger teach that the scan chain link 308 which is associated with the latch 302 comprises first and second transfer gates 422/424, 426/428, a shift input, and an output inverting buffer 432 and each transfer gate 422/424, 426/428 comprises an NFET 422 and a PFET 424 which are connected in parallel via the sources and drains of each and the two transfer gates 422/424, 426/428 are opened and closed out of phase (i.e., in an alternating manner) (see col. 5, lines 8-29). However, the prior art taken singly or in combination fail to teach, anticipate, suggest, or render obvious a method of testing an integrated circuit, comprising: providing test data to at least two scan chains of the

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integrated circuit; and shifting test data through the at least two scan chains in parallel, but out-of-phase, while at least a portion of the test data is being provided to the at least two scan chains. Consequently, claim 21 is allowed over the prior art.

Claims **22-23**, which is/are directly or indirectly dependent/s of claim 21 are also allowable over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Esaw Abraham whose telephone number is (571) 272-3812. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are successful, the examiner's supervisor, Albert DeCady can be reached on (571) 272-3819. The fax phone numbers for the organization where this application or proceeding is assigned (571) 273-8300.

Information regarding the status of an Application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or PUBLIC PAIR. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have

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questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Esaw Abraham
Esaw Abraham

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David Ton
DAVID TON
PRIMARY EXAMINER